



Roy F. Weston, Inc.  
Suite 400  
3 Hawthorn Parkway  
Vernon Hills, Illinois 60061-1450  
708-918-4000 • Fax 708-918-4055

US EPA RECORDS CENTER REGION 5



504567

16 June 1995

Ms. Jan Pels (HSM-5J)  
Work Assignment Manager  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

U.S. EPA Contract No.: 68-W8-0089

Work Assignment No.: 48-5JZZ

Document Control No.: 4500-48-ALFE

Subject: Focused Site Screening Inspection Prioritization Report  
Ashland Chemical/Swift Adhesives (CERCLIS ID No. IND060370343)

Dear Ms. Pels:

Roy F. Weston, Inc. (WESTON®) is transmitting the attached FSIP report for the Ashland Chemical/Swift Adhesives site that could be made available to the general public.

If you have any questions, please call.

Very truly yours,

ROY F. WESTON, INC.

James M. Burton, P.E.  
Site Manager

JMB:amp

cc: Ms. P. Vogtman, Project Officer, U.S. EPA (letter only)  
Mr. H. Atkinson, IDEM

CH01\PUBLIC\WO\ARCS\040\17963.LTR

4500-48-ALFE

This document was prepared by Roy F. Weston, Inc., expressly for U.S. EPA. It shall not be released or disclosed in whole or in part without the express, written permission of U.S. EPA.



rec'd 6/21/95

**FOCUSED SITE INSPECTION PRIORITIZATION REPORT  
ASHLAND CHEMICAL/SWIFT ADHESIVES  
HAMMOND, INDIANA  
LAKE COUNTY  
IND060370343**

June 1995

This document was prepared in accordance with U.S. EPA Contract No. 68-W8-0089,  
WESTON Region V Alternative Remedial Contracting Strategy (ARCS).

Work Assignment No.: 48-5JZZ/FSIP

Document Control No.: 4500-48-ALFE

-1473-  
W.C.

**FOCUSED SITE INSPECTION PRIORITIZATION REPORT  
ASHLAND CHEMICAL/SWIFT ADHESIVES  
HAMMOND, INDIANA  
LAKE COUNTY  
IND060370343**

Roy F. Weston, Inc. (WESTON®) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a focused site inspection prioritization (FSIP) of the Ashland Chemical/Swift Adhesives site under Contract Number 68-W8-0089 and work assignment number 48-5JZZ.

The site was initially evaluated in the form of a Preliminary Assessment (PA) prepared by Ecology & Environment, Inc. (E&E) on 19 September 1985. A Site Inspection (SI) for Swift Adhesives and Coatings was conducted by E&E on 18 March 1987, and the SI report was submitted to the U.S. EPA on 7 December 1987. During the process of evaluating sites for PAs, E&E discovered that the Swift Adhesives site and the Ashland Chemical site, both listed on CERCLIS at the same address, and therefore, were the same site. On 6 August 1991, the two sites were combined under the site name Ashland Chemical/Swift Adhesives.

**SITE INVESTIGATION NEEDS FOR CERCLIS-LISTED SITES**

The purpose of assessment of sites listed in the Comprehensive Environmental Response Compensation Liability Information System (CERCLIS) data base is to determine whether these sites are candidates for inclusion in the National Priority List (NPL). This determination is made using the Hazard Ranking System (HRS). Any site eligible for placement in the NPL must at least have an overall score of 28.50. Additional investigations in the form of Screening Site Inspection (SSI) and/or Expanded Site Inspection (ESI) are conducted for those sites whose preliminary HRS Score is greater than 28.50. The site is scored or re-scored after SSI and/or ESI to determine its eligibility for placement in <sup>the</sup> NPL.

The goal of a Focused Site Inspection Prioritization (FSIP) is to gather any additional information necessary, following the completion of the SSI (prior to the implementation of

the revised HRS), to help set priorities among sites for NPL listing or to screen them from further Superfund attention. FSIPs can be performed on sites that have SSI completion dates prior to August 1, 1992 in CERCLIS, for these sites were most likely not evaluated using the revised HRS model. The FSIPs are conducted using the revised HRS model, which was promulgated and published in the Federal Register (55 FR 51532) in December 1990 and which supersedes the original HRS.

If the existing information supports the determination that additional investigation is not necessary, the site is designated as requiring no further remedial action (NFRAP). Sites can also be NFRAPed without scoring if the following conditions exist:

- No waste is present at the site.
- Site at which the only known or suspected releases to the environment are due to petroleum products.
- Site is regulated under RCRA.

### SITE LOCATION

The Ashland Chemical/Swift Adhesives site is located at 1801 167th Street, Hammond, Lake County, Indiana. The land use surrounding the site is residential, commercial and industrial. A heavily populated residential area is located south of the site. A shopping center is located east of the site. An industrial complex is located north of the site and a field is located west of the site. A site location map is provided in Figure 1.

### SITE DESCRIPTION

The Ashland Chemical/Swift Adhesives site encompasses approximately 20 acres and is an inactive manufacturer of epoxy resin, vegetable fat and phenols. At the time of the SI the site consisted of a large warehouse located on the west-central portion of the property; an office located on the south-central portion of the property; a sludge pit located north of the

warehouse; several tank pads; lagoons located on the eastern portion of the property; and two heavily wooded fields located on the northern and western portions of the property. The site was fenced and locked. However, evidence of trespassing (i.e. discarded waste and burnt fields) were observed during the SI. The Hammond Fire Officials stated that the burnt areas were caused by trespassers and were not a result of site conditions. A site features map is provided in Figure 2.

On 11 June 1991, E&E performed an inspection at the Ashland Chemical/Swift Adhesives site. Based on site photographs taken by E&E, no buildings or other structures are present at the site. Only concrete and asphalt areas remain at the site.

### SITE HISTORY

The property was purchased by Swift Adhesive and Coatings (Swift) in 1958. Swift manufactured adhesives and coatings at the site. In 1970, Ashland Chemical Company (Ashland) purchased the property. Ashland manufactured epoxy resins from animal and vegetable fats and phenols. The facility produced approximately 6,000 gallons of sludge from animal and vegetable fats and fatty acids per year. The sludge was stored in tanks and later removed to various landfills for disposal. On 28 September 1978, Ashland discontinued the manufacturing process and sold the property to Machinery and Equipment Company of San Francisco, California.

On 17 September 1980 and 9 October 1980, the U.S. EPA conducted a site preliminary assessment/site inspection (PA/SI) at the Ashland Chemical/Swift Adhesives site. During the PA/SI, the U.S. EPA observed asbestos-containing insulation, eight transformer substations and six machines which possibly contained polychlorinated biphenyl (PCB) oil, 300 55-gallon drums of an unknown material, a leaking "corrosive" drum, and a partially buried acid drum in a trench. A pipe leading from Ashland Chemicals into a nearby area was also observed by the U.S. EPA during this inspection. The U.S. EPA collected samples

from hydraulic oils, tank sludges, insulation materials, and soil. Analytical results indicate the presence of PCBs and asbestos.

On 30 October 1980, the House of Representatives of the Congress of the United States wrote a letter to the Regional Administrator of the U.S. EPA informing him about the potentially dangerous situation at the former Ashland Chemical Company in Hammond, Indiana. In the letter to the U.S. EPA Regional Administrator, the Congressman stated that he was concerned about the presence of asbestos, numerous drums and other containers whose contents have not been identified, chemical sludge, and polychlorinated biphenyls (PCBs). He also stated that the current owners, Machinery and Equipment Company of San Francisco, has hired Brandenburg Demolition, Inc. to perform all necessary clean-ups. On 20 November 1980, the U.S. EPA Regional Administrator responded to the Congressman's concerns through a letter. In the letter the U.S. EPA stated that they have been actively investigating past operational procedures at the site and current demolition practices by Brandenburg Demolition.

On 3 November 1980, the U.S. EPA met with representatives of Ashland, Machinery and Equipment, Brandenburg Demolition and Hammond Air Pollution Control. At this meeting, the U.S. EPA discussed the current demolition practices by Brandenburg Demolition and past operational procedures concerning the disposal hazardous materials. Brandenburg Demolition agreed to submit a disposal plan to the U.S. EPA regarding the waste materials on-site at the time. In addition, the U.S. EPA prepared an Agreed Order with Brandenburg Demolition which addressed the safe handling and disposal of the asbestos-containing material as a result of this meeting.

The PCB transformers were reportedly stolen in 1984. Demolition activities were completed in 1985. Demolition and asbestos removal activities were conducted by C and C Industrial Main, Hammond, Indiana. All activities were supervised by the U.S. EPA and the Hammond Air Pollution Control.

## **PRIOR INVESTIGATIONS**

A Site Inspection (SI) of the site was conducted by E&E on 18 March 1987. During the SI, E&E collected seven soil samples (S1, S2, S3, S4, S5, S7, S8) and one background soil sample (S6). The on-site sample locations are shown in Figure 2, and the background soil sample location is shown in Figure 3. Soil sample S1 was collected from the west side of the warehouse. Soil sample S2 was collected from the north side of the warehouse near the sludge pit. Soil sample S3 was collected from the north side of the warehouse near the storage drum area. Soil sample S4 was collected from the northeast corner of the warehouse. Soil sample S5 was collected northeast of the warehouse near the concrete pad. Soil sample S7 was collected on the south side of the concrete pad near the access road. Soil sample S8 was collected from the lagoons located north east of the office building. The potential background soil sample S6 was collected from the Haywood Park located approximately 1 to 2 miles northwest of the site.

Soil samples were analyzed for U.S. EPA Target Compound List (TCL) compounds and Target Analyte List (TAL) analytes. Analytical results from the soil samples presented in the E&E SI Report (7 December 1987), indicate the presence of polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and heavy metals in soil collected from the west side of the warehouse (S1), the pit area (S2), and the area south of the concrete pad, near the access road (S7) at concentrations greater than three times the background concentrations or above contract required detection limit (CRDL)/sample quantitation limit (SQL) if the compound/analyte was not detected in the background sample. PCBs were also detected in soil samples collected from the northeast corner of the warehouse (S4). These compounds/analytes were detected at concentrations greater than three times the background sample (S6) or above the CRDL/SQL if the compound was not detected in the background sample. The key analytical findings of the SI soil sampling is presented in Table 1.

## ADDITIONAL SITE INFORMATION

The northern area of Lake County is situated in the Calumet Lacustrine plain. The drift consists of sand and gravel. The soil is fine to medium sand with scattered deposits of organically rich silt. In the northeastern portion of Lake County, sandstone and dolomite of Cambrian and Ordovician age form a deep aquifer of minor significance. Other minor sources of water are the dolomitic limestone, dolomite and shale of the Devonian age. The upper 100 feet of the dolomite of the Silurian age forms the lowermost aquifer. As the distance increases, a layer of Silurian Dolomitic Limestone in the Wabash formation overlies the Ordovician layer. These two layers of bedrock are separated by a layer of shale. The Wabash formation is jointed and holds water. In central and eastern Lake County, a layer of Devonian antrum and Ellsworth shale overlies the Silurian layer. The aquifer generally flows on a low gradient northeast toward Lake Michigan.

The aquifer of concern is the unconfined Calumet Aquifer, averaging 20 feet in thickness, exists over much of the area, with exposed sand at the surface and a shallow water table averaging less than 15 feet below ground surface (bgs). Beneath the aquifer is a nearly impermeable clay till averaging 50 feet in thickness. The Calumet aquifer supplies the base flow for the Grand Calumet River. The demand on this aquifer is light and its present use is restricted to domestic and small commercial facilities. The Calumet Aquifer is susceptible to contamination because of permeable sand and a shallow water table.

All communities within the 4-mile radius of the site obtain their drinking water from surface water intakes in Lake Michigan. No municipal wells or private wells are located within the 4-mile radius of the site.

According to the PA/SI, all surface water runoff from the site drains to a storm sewer which discharges into the Hammond Sanitary Treatment Plant. Therefore, there is no overland flow to surface water.



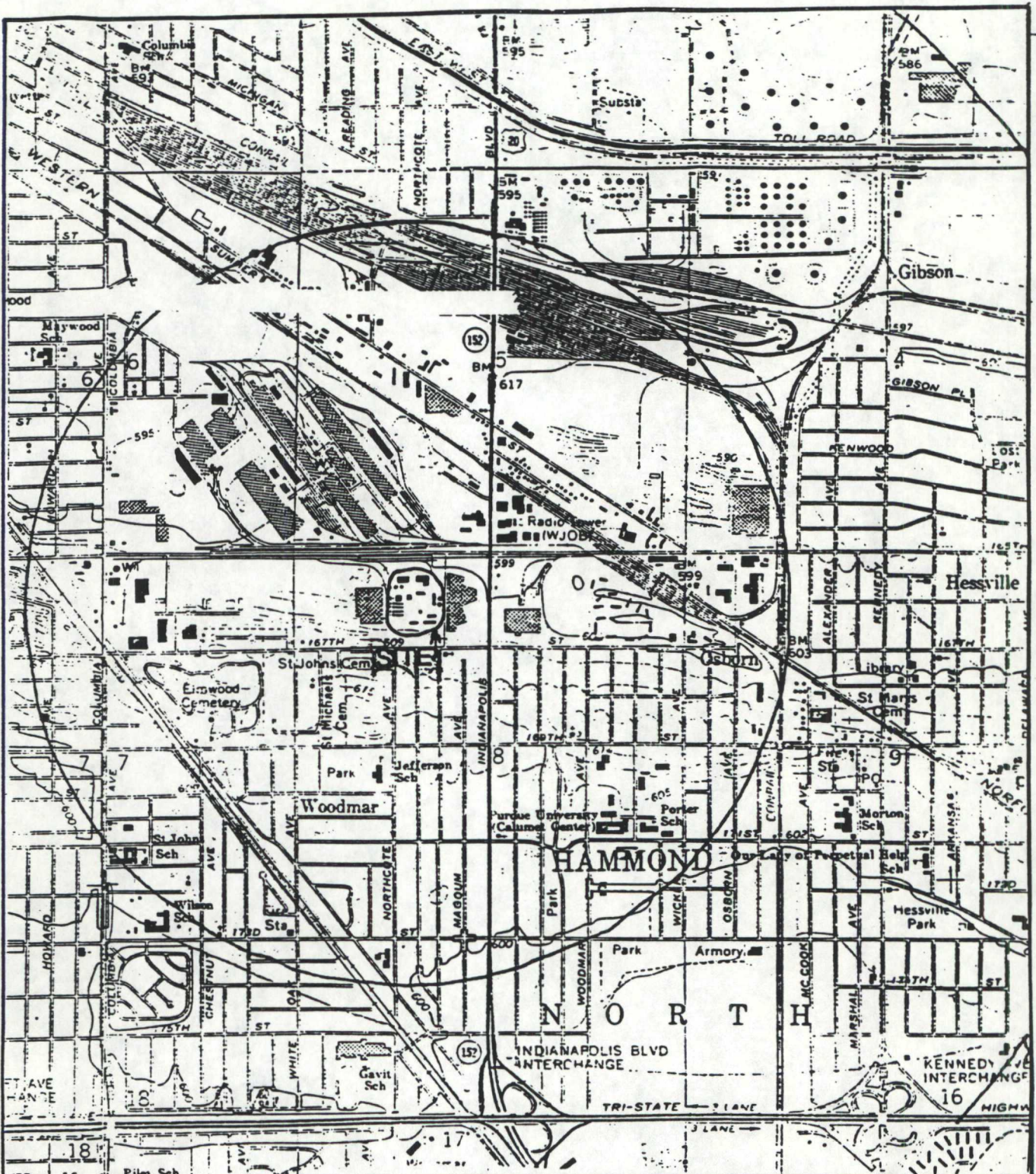
A fence encompasses the entire facility and gates are locked. However, the SI indicates that there is evidence of trespassing at the site. There is no residential population or workers present at the property. No sensitive environments are present at the site. There are approximately 732,141 people living within a 4-mile radius of the site as shown in Table 2.

### SUMMARY

The population within a 4-mile radius of the site receive their drinking water from surface water intakes in Lake Michigan and no overland migration pathway to surface water exists at this site. Due to the lack of population using groundwater and absence of overland migration pathway to surface water, no samples were collected during this FSIP inspection.



FIGURE 1

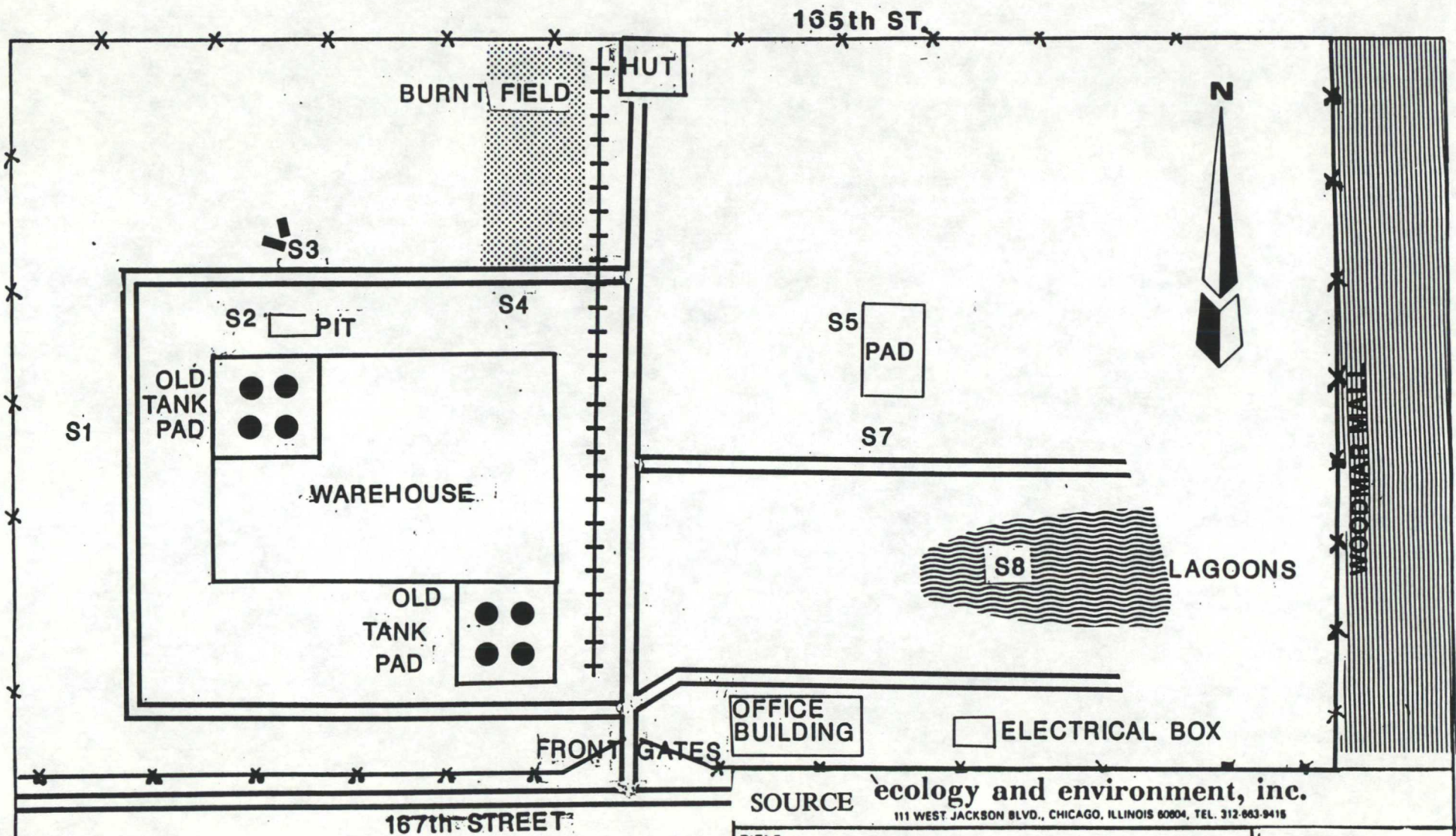


SOURCE ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE	SITE MAP	FIGURE #
SITE	SWIFT ADHESIVES & COATINGS	SCALE 1:24000
CITY	HAMMOND IN	P.A.N. FIN0126
SOURCE	USGS 7.5 MINUTE TOPO MAP HIGHLAND QUAD	DATE 1968 REVISED 1980

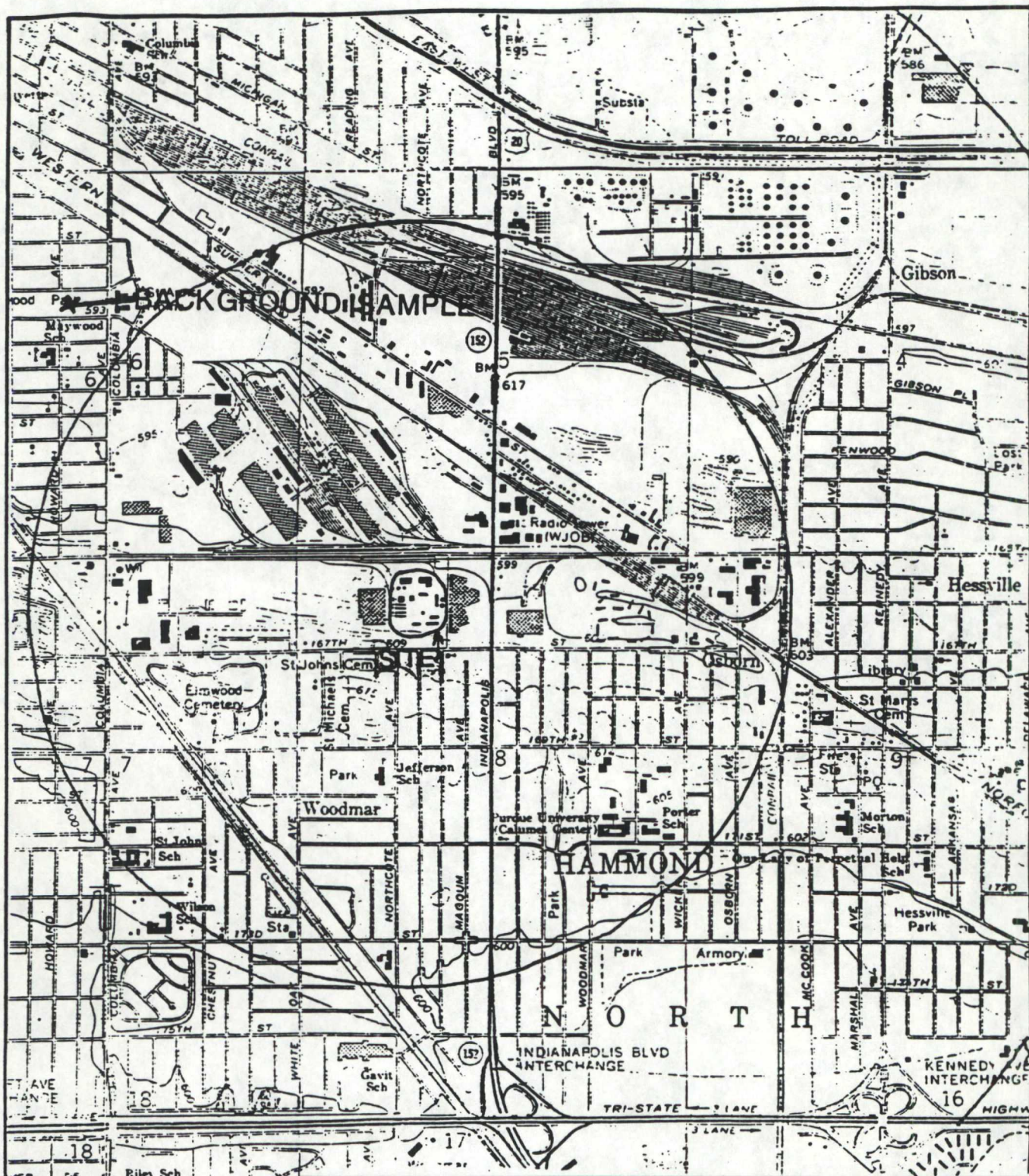




SOURCE ecology and environment, inc.  
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-863-9418

TITLE	SITE MAP	FIGURE 2
SITE	SWIFT ADHESIVES & COATINGS	SCALE NTS
CITY	HAMMOND	STATE IN
SOURCE	SITE INSPECTION	P.A.N. FIN0126
		DATE 1987
		REVISED N/A





**SOURCE** ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE		FIGURE 3
SITE MAP		
SITE		SCALE
SWIFT ADHESIVES & COATINGS		1:24000
CITY		P.A.N.
STATE		FIN0126
SOURCE		DATE
USGS 7.5 MINUTE TOPO MAP		1968
HIGHLAND QUAD		REVISED
		1980



Table 1

**Key Analytical Findings of Soil Sampling  
Ashland Chemical/Swift Adhesives  
Hammond, Indiana**

Sample I.D.	Depth	Sample Location	Units	Compound/Analyte Compound	Concentration	Background Concentration (S-6)
S-1	Unknown	West fenceline near middle of warehouse (near drum)	µg/kg mg/kg mg/kg mg/kg mg/kg	Aroclor-1260 Cobalt Copper Zinc Magnesium	66,000 158 J* 489 J* 1,650 E 16,400	< 160 [6.2] J 94 J 373 J 3,370
S-2	Unknown	Old tank site (warehouse) north side of building, near floor drain runoff	µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg mg/kg mg/kg mg/kg	Phenanthrene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(12,3-cd)pyrene Benzo(g,h,i)perylene Aroclor-1260 Iron Nickel Zinc	108,232 167,683 167,683 82,317 86,890 71,646 41,159 74,695 91,463 74,695 13,000 125,000 102 4,000 JE	536 J 630 J 654 J < 815 469 J < 815 < 815 < 815 < 815 < 815 < 160 17,800 21 373
S-4	Unknown	Northeast corner of building near sewage intake	µg/kg	Aroclor-1260	250	< 160
S-7	Unknown	East side of warehouse	µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg µg/kg mg/kg mg/kg	Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(k)fluoranthene Benzo(a)pyrene Aroclor-1260 Nickel Thallium	21,114 6,994 29,031 31,671 19,794 22,433 36,949 17,155 540 543* 2.65	556 J < 815 630 J 654 J < 815 469 J < 815 < 815 < 160 21 [0.62]

J - Estimated value.

\* - Duplicate value outside QC protocols, which indicates a possible matrix problem.

[ ] - Value is above instrument detection limit but below contract required detection limit.

E - Estimated or not reported due to interferences.

**Table 2**

**Population within 4 Miles of the Site  
Ashland Chemical/Swift Adhesives  
Hammond, Indiana**

Distance (Miles)	Population
0 - 1/4	3,445
1/4 - 1/2	13,410
1/2 - 1	39,377
2-3	279,782
3-4	240,124
Total	732,141